Research output of University of Delhi and Jawaharlal Nehru University in the field of Arts and Humanities: A study of Thomson Scientific Database during 2004-2016

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ABSTRACT

 The purpose of this study is to explore the publication trends and check the research productivity of DU and JNU in the field of Arts and Humanities through WoS citation database.

Design/methodology/approach: *For analysis of the study, the required data of DU and JNU was collected from the AHCI of the Web of Science citation database in the field of Arts and Humanities area for the period of 2004-2016.*

Findings: *It is found that 195 articles of JNU with 3778 citations are high ranked from DU (161) articles with 3504 citations) in the Arts and Humanities Citation Index (AHCI). Author collaboration is very less and History is highly worked area with 74 articles in both DU and JNU. Out of 132 source titles, only 22 source titles are commonly used in DU and JNU such as Indian Historical Review, Indian Economic and Social History Review, International Review of Social Asian Studies etc. BinduPuri and Charu Gupta of DU and RomilaThapar of JNU are found high ranked prolific authors in arts and humanities citation index of web of science.*

Research limitations/implications: *The data required for analysed was collected only for DU and JNU from the Web of Science citation database in the field of arts and humanities between the limited time periods 2004 to 2016.*

Originality/value: *As yet these have been no such studies conducted that investigate the various aspects of DU and JNU in the field of arts and humanities and this paper is relevant and useful to those who are interested in bibliometric study, and it provides a comprehensive study for check the research productivity of DU and JNU in WoS citation database from 2004 to 2016.*

Keywords: Bibliometric analysis, research output, research productivity, arts and humanities, author collaboration, citation database, arts and humanities citation index

1. INTRODUCTION

We ask Research has become an important part of human activities. It is essential for find the progress in any discipline. Research activities play an important role for grow and develop the knowledge and it ultimately leads to the extension of the boundaries of knowledge and scholarship. Technological innovations and scholarly communication explore the need to quantitatively analyse any subject field to know the growth and trends in published literature. In research, there is an emphasis on search or inquiry after, or for, something involving scientific (or systematic) investigation. In this case citation index plays a very important role to identify the research productivity of any university or institute. A citation index is a kind of bibliographic index, which is useful to check the development of any subject and establishes the link between past and present literature and web of science (WoS) is an online subscription based scientific citation indexing service originally produced by the institute for scientific information (ISI), now maintained by clarivate analytics. Web of science is collection of many citation indexes such as science citation index, social sciences citation index, arts and humanities citation index and emerging sources citation index.

The Arts and humanities citation index is used for search in the subject area of arts and humanities. It is a citation index (with abstracting and indexing) which is covering more than 1700 arts and humanities journals. This citation index has coverage the many subjects such as arts, humanities, language (including linguistics), poetry, music, classical works, history, philosophy, archaeology, architecture, religion, television, theater and radio. And this database can be accessed online through web of science.

2. Review Literature

Palacios-Callender, Roberts and Roth-Berghofer 2016 indicated that collaboration between scientifically advanced institutions (central) and a wide range of national institutions is a consequence of the social character of science in cuba in which cooperation prevails. Gautam and Mishra 2015 described the scholarly research publications of Banaras Hindu University, Varanasi, India. In this study, 1041 articles were collected from ICI for the period of 2004-2013. The study attempted to measure year-wise distribution of publications output, co-authorship index, collaborative co-efficient collaborating universities/institutes/colleges, states and countries. The rest indicated that research productivity of BHU is increasing at the average rate of 104.1 publications per year and most of researchers are contributed by joint authors, 404(39%) articles published in SCIE indexed journals and 637 (61%) articles published in non SCIE-indexed journals.Siwach and Kumar 2015 investigated the research contributions of MahashriDayanand University, Rohtak in terms of its publication output during 2000-2013 as reflected Scopus database. The study analyzed the year-wise research productivity, its citations impact, national and internationals collaborations, top collaborating institutions, subject-wise distribution of papers, journals used for communication, most preferred journals for publication, most prolific author etc. Meera and Sahu 2014 depicted the research performance of University of College of Medical Science (UCMS) in different areas or subfields of medical and health sciences. This study showed that the highest contribution of 25.6 percent of total publications is made by three authorship collaboration. The degree of collaboration is 0.92, which means most of the research works are collaborative works. Gupta and Kaur 2013 analyzed the global publication output in glaucoma research during 2002-11 on several parameters. The Scopus Citation database was used to retrieve the data for 10 years. India ranks at 6th with global publication share of 3.26% and an annual average publication growth rate of 6.94%.Haddow and Genoni 2012 concluded that bibliometric and webometric studies can illustrate a range of phenomena related to transformations in research and scholarly communication, including patterns of growth in a field's literature, characteristics of a field's research and communication practices and citation rates. Kumar and Dora 2012 studied the research performance of Indian Institute of Management Ahmedabad (IIMA), from the paper those were published in the journals that had been indexed in WoS and Scopus for the past twelve years. This study found the some increasing facts like increase in number of papers being published by IIMA over the year 1999 to 2010, increase in collaborations among authors, decrease in single author publications and multi-disciplinary nature of research undertaken at the institute. Savanur and Konnur (2012) exposed quantitative growth and development of the Bangalore University (BU) in science and technology in terms of publication output from 1970 to 2010. This study showed that during 1996 to 2000 the growth rate of the publication was highest of all years of the publications. Subsequently there was a gradual decrease in the growth rate in the five-year blocks of 2001 to 2005 and 2006 to 2010. Bangalore University has collaborated with 27 countries and USA is the top collaborating country with 74(31.09%) of papers followed by France with 20(8.4%). Authorship and collaboration trend were towards multi-authored paper.Nwagwu and Egbon 2011 analyzed the publications on Nigeria indexed in Arts and Humanities Citation Index (AHCI) and Social Science Citation Index (SSCI) of Thomson Scientific databases respectively to understand the international perspective of aspects of research publication dynamic in both fields. And this study gives evidence that Nigerian Social Science and arts and humanities literature has penetrated the international science community. SSCi and AHCI indexed a total of 716 publications on Nigeria, 634 and 82 respectively. The publication received a total 1371 citations, the 82 AHCI documents were cited compared with

46.7 per cent of SSCI publications; but citation of social science papers was consistently on the increase. Kao and Pao (2009) revealed a nation-wide evaluation of research performance in management for 168 universities in Taiwan. This study showed that public universities, in general, performed better than private ones due to more financial support from the government. Sangam and Meera 2009 discussed the year-wise (2000-2005) growth of Indian research papers in the thirteen subfields of Chemical sciences. Degree of collaboration is the highest for the field of Heterocyclic compound (0.97) followed by pharmacology, inorganic chemical reaction, crystallography and plant bio chemistry. Kumbar, Gupta and Dhawan 2008 described the growth, contribution and impact of research carried out by the scientist of university of Mysore in science and technology and analyzed the strong and weak area of university research, their growth rate and impact in terms of average citations received. The research activity in University of Mysore in science and technology was on a growing path, growing with on average rate of 23% per annum. This study was based on publications data consisting of 1518 research papers, published by the University staff during 1996-2006. Eden 1994 used the questionnaire method and determined the quality of publication output among librarians in Nigerian Universities over a period of 1985-1992. Empirical analysis showed that the quality of publication output is low.

3. Objectives of the study

1. To examine the year –wise distribution of papers and citations in DU and JNU

2. To study the document type and average length of papers

3. To study the authorship pattern and co-authors collaboration with the help of different measures

4. To identify the prolific authors, highly worked research area and most cited articles of DU and JNU

5. To determine the most used source titles in arts and humanities

4. Methodology

This study is conducted to analysis the research output of University of Delhi and Jawarharlal Nehru University. It is based on a quantitative analysis of arts and humanities research output publications as journal articles, book review, proceeding paper, poetry etc. The data for this study has been drawn from Arts and Humanities Citation Index (AHCI) of the Web of Science for the period of 2004-2016. Following data has been noted: number of author(s), types of document, page no of article(s), number of citation(s), source title of article(s), research area of paper(s), and other data which are required for analysis. In the study, advanced bibliometric indicators are used to assess the research output and author productivity. For the analysis of data following indicators has been used:

Collaborative Index is the number of authors per paper

$CI = Np/Na$

Where, Np = Number of papers

Na = Number of authors

Degree of collaboration

$DC = Nm/Nm+Ns$

Where, DC = Degree of collaboration

Nm = Number of multi-authored publication published during the year

Ns = Number of single-authored publication published during the year

Collaborative Coefficient

$CC = [f1+f2/2+f3/3+…..fk/k]/N$

Where, $f1$ = Single authored papers

$f2$ = double authored papers

$f3$ = three authored papers

N = Total number of publications

5. Results and Discussion

5.1 Chronological distribution of Articles and Citation

In order to understand the Chronological distribution of articles and citations of University of Delhi and Jawarharlal Nehru University in the selected year from 2004 to 2016 in Arts and Humanities citation index. The number of articles and citations are varies from year to year and as per the observation from the table 1 find out that JNU have presented the more contribution of articles i.e., 195 articles with 3778 citations as compare to DU 161 articles with 3504 citations. In the DU, maximum contribution of articles i.e. 24 (14.91%), are published in the year of 2015. And least contribution of articles are 5 (3.11%) in the year of 2005. From table it can be noted that highest number of citations appeared in the year 2012, i.e. 459 (13.10%) and the year 2008 is recorded least number of citations in DU i.e., 26 (0.74%). And other side JNU showed that year of 2016 is recorded the maximum contribution of articles i.e. 23 (11.79%) and least contribution of articles i.e. 7 (3.59%), are found in the year of 2004 and 2005. And as shown in the given table, highest number of citations are 618 (16.36%) in the year 2013. The year 2005 is noted least number of citations, i.e., 13 (0.34%). And it is also recorded that the highest number of citation per article is 45 in DU and 34 in JNU.

Table 1: Year-wise Distribution of Articles and Citations

Year	DU		JNU		Citation per article		Article %age		Citation %age	
	Article	*Citation*	*Article*	*Citation*	*DU*	*JNU*	*DU*	*JNU*	*DU*	*JNU*
2004	12	119	7	51	10	7	7.45	3.59	3.40	1.35
2005	5	160	7	13	32	2	3.11	3.59	4.57	0.34
2006	11	129	10	180	12	18	6.83	5.13	3.68	4.77
2007	7	160	10	323	23	32	4.35	5.13	4.57	8.55
2008	6	26	11	213	4	19	3.73	5.64	0.74	5.64
2009	7	96	17	151	14	9	4.35	8.72	2.74	4.00
2010	8	358	10	178	45	18	4.97	5.13	10.22	4.71
2011	12	426	20	379	36	19	7.45	10.26	12.16	10.03
2012	18	459	20	345	26	17	11.18	10.26	13.10	9.13
2013	19	317	18	618	17	34	11.80	9.23	9.05	16.36
2014	13	438	21	359	34	17	8.07	10.77	12.50	9.50
2015	24	378	21	455	16	22	14.91	10.77	10.79	12.05
2016	19	438	23	513	23	22	11.80	11.79	12.50	13.58
Total	161	3504	195	3778	22	19	100.00	100.00	100.00	100.03

5.2 Distribution of citation

To analysis the details of number of references that appeared at the end of articles. From the table 2 reveals that, 76 (47.20%) articles of DU and 105 (53.85%) articles of JNU are showed that their maximum numbers of references per articles are 0-5. And it is also found out from the table that minimum references are between 31-35 in the 3 articles (1.89%) in DU and other side JNU is showed that minimum is between 11-15 references in the 4 articles (2.07%).

5.3 Length of Article

To examine the length of published articles which showed that how many pages are used to writing any article. Table 3 depicts that, 78 (48.45%) articles of DU and 94 (48.21%) articles of JNU have the length in the range of 0-5 pages. And the minimum length of articles are 6-10 pages with 12 (7.45%) articles of DU and 11-15 pages length with 16 (8.21%) articles of JNU. It can be noted that 27 articles (16.77%) of DU and 22 articles (11.28%) of DU are showed the length of more than or equal to 26 pages.

5.4 Document types-wise Contribution

Analysis of data on the document types-wise contribution of papers, Table 4 depicts that papers of publication have published in variety of document types. Majority of articles are published in the form of articles (Research Articles) i.e. 82 (50.93%) in DU and 96 (49.23%) in JNU. And least number of document types is Biographical Item & Proceeding Paper in DU with only one article (0.62%). In the other side is showed that JNU's least number of document types is found in Poetry and Biographical item with one article (0.51%).

5.5 Authorship pattern

To examine the pattern of authorship, published articles are classified into five categories. These are single authored articles, two authored articles, three authored articles and four authored articles and multi (with 5 authors or more than 5 authors) authored articles. Table 5 presents the authorship pattern in the articles of DU and JNU. It is found from the table that out of 161 articles of DU, highest number of articles are written by single author i.e. 150 articles (93.17%). And same situation is happened in other side. In JNU, out of 194 articles, 185 articles (94.87%) are with single author. It is noticed that only one-one article of DU and JNU is written by four authors and only one article of JNU is come under the five authored article. It can also found from the table that 174 authors of DU and 212 authors of JNU are playing the role for writing the articles.

5.6 Degree of Collaboration

Table 6 presents the year-wise degree of collaboration in DU and JNU and it reveals that the value of the highest degree of collaboration (DC) is 0.20 in DU during the period of 2005 and 0.14 during the period of 2015 in JNU. It is interesting to note that the degree of collaboration from the year of 2011 to 2013 is 0.05 in JNU.

No of citation	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		Total		%age	
	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU
0 to 5	8	6	3	6	7	6	1	4	5	7	5	11	1	6	3	12	8	13	10	7	6	9	14	8	5	10	76	105	47.20	53.85
6 to 10	1	-	-	1	-	-	1	-	-	1	-	2	-	-	1	-	-	-	-	1	-	1	2	2	1	-	6	8	3.73	4.10
11 to 15	-	-	-	-	1	-	2	1	-	-	1	-	2	-	-	1	-	-	1	-	-	1	1	1	1	-	9	4	5.59	2.05
16 to 20	-	-	-	-	-	1	-	-	-	1	-	2	2	-	1	1	-	-	1	1	1	1	1	-	2	2	8	9	4.97	4.62
21 to 25	1	-	-	-	1	1	-	1	1	-	-	-	1	-	-	-	-	-	1	-	1	3	2	3	2	3	10	11	6.21	5.64
26 to 30	-	-	-	-	-	1	1	-	-	-	-	-	2	2	1	1	1	-	1	1	-	1	-	1	2	1	8	8	4.97	4.10
31 to 35	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1	1	-	2	-	2	-	-	3	5	1.86	2.56
>=36	2	1	2	-	2	1	1	4	-	2	1	2	-	2	6	5	8	7	4	7	5	3	4	4	6	7	41	45	25.47	23.08

| Total | 12 | 7 | 5 | 7 | 11 | 10 | 7 | 10 | 6 | 11 | 7 | 17 | 8 | 10 | 12 | 20 | 18 | 20 | 19 | 18 | 13 | 21 | 24 | 21 | 19 | 23 | 161 | 195 | 100.00 | 100.00 |

Table 3: Length of Articles

No of pages	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		Total		%age	
	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU	DU	JNU
0 to 5	8	5	3	5	7	8	2	4	4	4	6	6	1	3	3	13	7	11	10	6	7	12	13	10	7	7	78	94	48.45	48.21
6 to 10	-	1	-	1	1	-	2	-	-	4	-	4	-	3	1	1	2	1	1	3	1	-	2	1	2	4	12	23	7.45	11.79
11 to 15	1	-	-	1	-	1	1	-	1	1	-	3	2	1	-	2	3	1	1	1	2	2	2	2	1	1	14	16	8.70	8.21
16 to 20	1	1	-	-	1	1	-	1	-	-	-	2	2	-	2	1	-	2	2	-	-	5	3	2	5	5	16	20	9.94	10.26
21 to 25	2	-	-	-	-	-	1	1	1	-	-	2	1	1	3	-	1	4	3	5	-	2	1	1	1	4	14	20	8.70	10.26
>= 26	-	-	2	-	2	-	1	4	-	2	1		2	2	3	3	5	1	2	3	3		3	5	3	2	27	22	16.77	11.28
Total	12	7	5	7	11	10	7	10	6	11	7	17	8	10	12	20	18	20	19	18	13	21	24	21	19	23	161	195	100.00	100.00

Table 4: Document type of Articles

Doc type	Article		Cumulative Article		Article %		Cumulative Article %	
	DU	JNU	DU	JNU	DU	JNU	DU	JNU
Article	82	96	82	96	50.93	49.23	50.93	49.23
Editorial Material	7	9	89	105	4.35	4.62	55.28	53.85
Poetry	2	1	91	106	1.24	0.51	56.52	54.36
Biographical Item	1	1	92	107	0.62	0.51	57.14	54.87
Book Review	68	84	160	191	42.24	43.08	99.38	97.95
Proceeding Paper	1	4	161	195	0.62	2.05	100.00	100.00

Table 5: Authorship pattern

No of Author	2004 DU	2004 JNU	2005 DU	2005 JNU	2006 DU	2006 JNU	2007 DU	2007 JNU	2008 DU	2008 JNU	2009 DU	2009 JNU	2010 DU	2010 JNU	2011 DU	2011 JNU	2012 DU	2012 JNU	2013 DU	2013 JNU	2014 DU	2014 JNU	2015 DU	2015 JNU	2016 DU	2016 JNU	Total DU	Total JNU	%age DU	%age JNU
Single	11	7	4	7	10	10	6	10	6	11	7	15	8	10	11	19	16	19	19	18	11	20	23	18	18	21	150	185	93.17	94.87
Two	1	-	1	-	1	-	1	-	-	-	-	2	-	-	1	-	2	-	-	-	1	1	1	3	1	-	10	6	6.21	3.08
Three	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2	0.00	1.03
Four	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	1	1	0.62	0.51
Five or above	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	0	1	0.00	0.51
Total Articles	12	7	5	7	11	10	7	10	6	11	7	17	8	10	12	20	18	20	19	18	13	21	24	21	19	23	161	195	100.00	100.00
Total Authors	13	7	6	7	12	10	8	10	6	11	7	19	8	10	13	24	20	23	19	18	17	22	25	24	20	27	174	212		
CI	0.	1.	0.	1.	0.	1.	0.	1.	1.	1.	1.	0.	1.	1.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.		

	92	00	83	00	92	00	88	00	00	00	00	89	00	00	92	83	90	87	00	00	76	95	96	88	95	85	93	92		
CC	0.96	1.00	0.90	1.00	0.95	1.00	0.93	1.00	1.00	1.00	1.00	0.94	1.00	1.00	0.96	0.96	0.94	0.96	1.00	1.00	0.90	0.98	0.98	0.93	0.97	0.94	0.96	0.97		

Table 6: Degree of Collaboration among Co-author

Year	No of Co-authors Articles DU	JNU	%age DU	JNU	Degree of Collaboration DU	JNU
2004	1	-	8.33	0.00	0.08	-
2005	1	-	20.00	-	0.20	-
2006	1	-	9.09	-	0.09	-
2007	1	-	14.29	-	0.14	-
2008	-	-	-	-	-	-
2009	-	2	-	11.76	-	0.12
2010	-	-	-	-	-	-
2011	1	1	8.33	5.00	0.08	0.05
2012	2	1	11.11	5.00	0.11	0.05
2013	-	-	-	-	-	-
2014	2	1	15.38	4.76	0.15	0.05
2015	1	3	4.17	14.29	0.04	0.14
2016	1	2	5.26	9.09	0.05	0.09

5.7 Research Area

To check the research area-wise contribution in the DU and JNU; it is found that overall 32 research area are covering in DU and JNU and table 7 showed that out of 32, DU presents the contribution in 23 research area field and other side JNU is showed the contribution in 28 research area field. And it is very interested that DU and JNU, both are presented maximum number of articles in the field of History i.e. 74 with 1249 citations (17 citation per article) and 1377 citations (19 citations per article) respectively. And only one article is coming in many research areas in DU such as architecture, anthropology, education educational research, geology, general internal medicine, psychology, physical geography and women studies. And JNU is also presented only one article in many research field, these are architecture, cell biology, criminology penology, ethnic studies, health care sciences services and science technology other topics.

Table 7: Status of Research Area of DU and JNU

Research Area	University of Delhi Article	Citation	Citation per article	Jawaharlal Nehru University Article	Citation	Citation per article
Anthropology	1	1	1	4	137	34
Archaeology	2	80	40	3	73	24
Architecture	1	20	20	1	0	0

Area studies	5	467	93	6	160	27
Arts	-	-	-	4	40	10
Arts Humanities other topics	16	437	27	20	297	15
Asian Studies	53	1025	19	42	1052	25
Business Economics	-	-	-	4	59	15
Cell Biology	-	-	-	1	18	18
Communication	2	41	21	5	185	37
Criminology Penology	-	-	-	1	20	20
Cultural Studies	8	204	26	16	327	20
Education Educational Research	1	5	5	2	11	6
Ethnic Studies	-	-	-	1	82	82
Film Radio Television	5	187	37	11	388	35
General Internal Medicine	1	15	15	-	-	-
Geology	1	36	36	-	-	-
Government Law	-	-	-	4	214	54
Health Care Sciences Services	-	-	-	1	1	1
History	74	1249	17	74	1377	19
History Philosophy of Science	-	-	-	12	206	17
Linguistics	7	151	22	6	226	38
Literature	20	460	23	17	260	15
Philosophy	14	314	22	7	143	20
Physical Geography	1	36	36	-	-	-
Psychology	1	34	34	-	-	-
Religion	2	120	60	6	65	11
Science Technology other topics	-	-	-	1	40	40
Social Sciences other topics	2	44	22	5	209	42
Sociology	4	4	1	4	71	18
Theater	3	24	8	7	61	9
Women Studies	1	39	39	2	48	24

5.8 Sources Title

To analysis the high ranked source title, Table 8 showed that there are overall contribution of 132 source title in DU and JNU. Out of 132 source title contributions, DU has published articles in 59 journals. And JNU contribution is found in 94 journals. "Indian Historical Review" is high ranked source title of DU with 35 articles and closely followed by "Indian Economic and Social History Review" with 23 articles. It is noticed from the table that 38 source titles are coming with only one article from the DU side. And other side JNU, "Indian Economic and Social History Review" is high ranked source title with 25 articles and is also found from the table that 66 source titles are showing only one article.

5.9 Prolific Author

Table 9 showed the list of prolific authors of DU, those are giving the contribution of two or more articles in Arts and Humanities Index. It is found from the study that out 117 authors, only 34 authors have written the two or more articles and 22 authors played the role to give the contribution in 10 multi-authored articles in citation index. BinduPuri and Charu Gupta is high ranked prolific author of DU with 5 articles. And second ranked authors are David Vumlallian, Harish Trivedi, AnshuMalhotra, Amar Farooqui and ParthoDatta with 4 articles. And table 10 presented the list of JNU's prolific authors those provide the contribution of two or more articles. It is noted that overall 131 authors are giving the contribution to written the 195 articles of JNU. It is found that 35 authors are showed the contribution in two or more articles. And 27 authors are played the contribution in 10 multi authored articles. RomilaThapar is high ranked Prolific author of JNU with 8 articles and closely followed by Kumkum Roy with 7 articles.

Table 8 List of Source Titles

S.NO	Publication Name/Source Title	Papers		Total	%age	Rank
		DU	JNU			
1	Indian Economic and Social History Review	23	25	48	36.36	1
2	Indian Historical Review	35	12	47	35.61	2
3	Medieval History Journal	9	12	21	15.91	3
4	South Asian Journal of South Asian Studies	7	13	20	15.15	4
5	International Review of Social History	7	6	13	9.85	5
6	Bioscope - south Asian Screen Studies	4	6	10	7.58	6
7	Interventions International Journal of Postcolonial Studies	3	6	9	6.82	7
8	Sophia	5	-	5	3.79	8
9	Contributions to Indian Sociology	4	-	4	3.03	9
10	Journal of the Economic and Social History of the Orient	-	4	4	3.03	9
11	Modern Asian Studies	3	1	4	3.03	9
12	Technology and Culture	-	4	4	3.03	9
13	College Literature	1	2	3	2.27	10
14	International Journal of Hindu Studies	1	2	3	2.27	10

15	ISIS	-	3	3	2.27	10
16	Itinerario International Journal on the History of European Expansion and Global Interaction	-	3	3	2.27	10
17	Journal of Commonwealth Literature	2	1	3	2.27	10
18	Journal of Postcolonial Writing	2	1	3	2.27	10
19	Journal of Womens History	1	2	3	2.27	10
20	Philosophy East and West	3	-	3	2.27	10
21	TDR the Drama Review the Journal of Performance Studies	2	1	3	2.27	10
22	Theatre Research International	-	3	3	2.27	10
23	World Archaeology	2	1	3	2.27	10
24	American Historical Review	2	-	2	1.52	11
25	Anthropos	1	1	2	1.52	11
26	Asian Studies Review	-	2	2	1.52	11
27	Asian Theatre Journal	1	1	2	1.52	11
28	Comparative Literature Studies	2	-	2	1.52	11
29	Critical Quarterly	-	2	2	1.52	11
30	Dialogue Canadian Philosophical Review	-	2	2	1.52	11
31	Diogenes	1	1	2	1.52	11
32	European Journal of English Studies	-	2	2	1.52	11
33	Extrapolation	1	1	2	1.52	11
34	Folklore	-	2	2	1.52	11
35	Goethe Jahrbuch	1	1	2	1.52	11
36	History Workshop Journal	-	2	2	1.52	11
37	International Journal of the History of Sport	-	2	2	1.52	11
38	Journal of Asian Studies	2	-	2	1.52	11
39	Journal of Southeast Asian Studies	-	2	2	1.52	11
40	Medical Humanities	2	-	2	1.52	11
41	Philosophia	2	-	2	1.52	11
42	Sociology of Religion	-	2	2	1.52	11
43	Studies in Language	-	2	2	1.52	11
44	Studies in Religion Sciences Religieuses	-	2	2	1.52	11
45	Television New Media	-	2	2	1.52	11
46	Victorian Studies	2	-	2	1.52	11

47	Wasafiri	-	2	2	1.52	11
48	Womens History Review	1	1	2	1.52	11
49	Applied Psycholinguistics	1	-	1	0.76	12
50	ArchivOrientalni	1	-	1	0.76	12
51	Ariel A Review of International English Literature	-	1	1	0.76	12
52	Art Bulletin	-	1	1	0.76	12
53	Asian Ethnology	-	1	1	0.76	12
54	Asian Folklore Studies	-	1	1	0.76	12
55	Boundary 2 An International Journal of Literature and Culture	1	-	1	0.76	12
56	British Journal for the History of Science	-	1	1	0.76	12
57	Callaloo	1	-	1	0.76	12
58	Clcweb Comparative Literature and Culture	1	-	1	0.76	12
59	Cold Spring Harbor Perspectives in Biology	-	1	1	0.76	12
60	Communication and Critical Cultural Studies	-	1	1	0.76	12
61	Comparative Studies in Society and History	-	1	1	0.76	12
62	Contemporary Theatre Review	-	1	1	0.76	12
63	Contemporary Womens Writing	1	-	1	0.76	12
64	Continuum Journal of Media Cultural Studies	-	1	1	0.76	12
65	Critical Inquiry	1	-	1	0.76	12
66	Cultural Critique	-	1	1	0.76	12
67	Current Science	-	1	1	0.76	12
68	Econ Journal Watch	-	1	1	0.76	12
69	Elt Journal	1	-	1	0.76	12
70	Ethnicities	-	1	1	0.76	12
71	Forum for Modern Language Studies	1	-	1	0.76	12
72	Geschichte Und Gesellschaft	-	1	1	0.76	12
73	Heythop Journal a Quarterly Review of Philosophy and Theology	1	-	1	0.76	12
74	Historical Journal	-	1	1	0.76	12
75	Historical Journal of Film Radio and Television	-	1	1	0.76	12
76	Historical Materialism Research In Critical Marxist Theory	-	1	1	0.76	12
77	Historical Research	-	1	1	0.76	12
78	History Philosophy of the Life Sciences	-	1	1	0.76	12

79	Inter Asia Cultural Studies	-	1	1	0.76	12
80	International Journal of Law Crime and Justice	-	1	1	0.76	12
81	International History Review	-	1	1	0.76	12
82	International Journal of Asian Studies	-	1	1	0.76	12
83	International Journal of Nautical Archaeology	-	1	1	0.76	12
84	International Labor and Working Class History	-	1	1	0.76	12
85	InternationalesArchiv Fur Sozialgeschichte Der Deutschen Literature	-	1	1	0.76	12
86	Iranian Studies	-	1	1	0.76	12
87	James Joyce Quarterly	1	-	1	0.76	12
88	Journal of African Cultural Studies	1	-	1	0.76	12
89	Journal of American Folklore	-	1	1	0.76	12
90	Journal of American Studies	1	-	1	0.76	12
91	Journal of Consciousness Studies	1	-	1	0.76	12
92	Journal of Contemporary History	1	-	1	0.76	12
93	Journal of Economic History	-	1	1	0.76	12
94	Journal of Language Identity and Education	-	1	1	0.76	12
95	Journal of Material Culture	-	1	1	0.76	12
96	Journal of Medical Biography	-	1	1	0.76	12
97	Journal of Screenwriting	1	-	1	0.76	12
98	Journal of Visual	-	1	1	0.76	12
99	KriterionRevista De Filosofia	1	-	1	0.76	12
100	Labour Le Travail	-	1	1	0.76	12
101	Language Sciences	-	1	1	0.76	12
102	Law and History Review	-	1	1	0.76	12
103	Literary Review	-	1	1	0.76	12
104	Marvels Tales Journal of Fairy Tale Studies	-	1	1	0.76	12
105	Medical History	-	1	1	0.76	12
106	Museum International	-	1	1	0.76	12
107	National Medical Journal of India	1	-	1	0.76	12
108	Nineteenth Century Prose	-	1	1	0.76	12
109	Organon F	-	1	1	0.76	12
110	Philosophy East West	-	1	1	0.76	12

111	Planning Perspectives	1	-	1	0.76	12
112	PMLA Publications of the Modern Language Association of America	-	1	1	0.76	12
113	Public Understanding of Science	-	1	1	0.76	12
114	Representations	1	-	1	0.76	12
115	Ride The Journal of Applied Theatre and Performance	-	1	1	0.76	12
116	Science Fiction Studies	-	1	1	0.76	12
117	Screen	-	1	1	0.76	12
118	Social History	-	1	1	0.76	12
119	Social History of Medicine	-	1	1	0.76	12
120	Social Research	-	1	1	0.76	12
121	Social Semiotics	1	-	1	0.76	12
122	South Atlantic Quarterly	1	-	1	0.76	12
123	Space	-	1	1	0.76	12
124	Studies in Canadian Literature Etudes En Literature Canadienne	1	-	1	0.76	12
125	Telos	-	1	1	0.76	12
126	Third Text	-	1	1	0.76	12
127	Translation Studies	1	-	1	0.76	12
128	Translator	1	-	1	0.76	12
129	World Englishes	1	-	1	0.76	12
130	World Literature Today	1	-	1	0.76	12
131	Zeitschrift Fur Anglistik Und Amerikanistik	1	-	1	0.76	12
132	Zeitschrift Fur Geomorphologie	1	-	1	0.76	12

Table 9: Prolific authors of DU

Author Name	Rank	Article	Citation	Citation per Article
Puri, Bindu	1	5	84	17
Gupta, Charu	1	5	486	97
Zou, David Vumlallian	2	4	90	23
Trivedi, Harish	2	4	40	10
Malhotra, Anshu	2	4	158	40

Farooqui, Amar	2	4	5	1
Datta, Partho	2	4	22	6
Sen, Sambudha	3	3	23	8
Kumar, Sanjay	3	3	2	1
Jain, Shalin	3	3	95	32
Bhagava, Meera	3	3	113	38
Behal, Rana P	3	3	24	8
Barua, Ankur	3	3	155	52
Sharma, Ramesh K	2	2	36	18
Sengupta, Debjani	2	2	66	33
Sen AP	2	2	2	1
Sahu, Bhairabi Prasad	2	2	2	1
Rai, Santosh Kumar	2	2	65	33
Pillai, Sharon	2	2	45	23
Naik, Priya	2	2	2	1
Mohapatra, Prabhu P	2	2	65	33
Misra, Sanghamitra	2	2	2	1
Menon, Bindu	2	2	13	7
Madan, Vandana	2	2	2	1
Kumar, Priya	2	2	54	27
Kaul, Shonaleeka	2	2	21	11
Joshi, Chitra	2	2	87	44
Jhingan, Shikha	2	2	92	46
Hasan, Farhat	2	2	2	1
Gabriel, Karen	2	2	53	27
Dhaliwal, Upreet	2	2	0	0
Deshpande, Anirudh	2	2	2	1
Chitgopekar, Nilima	2	2	2	1
Chatterji, Roma	2	2	2	1

Table 10: Prolific authors of JNU

Author Name	Rank	Article	Citation	Citation per

				article
Thapar, Romila	1	8	55	7
Roy, Kumkum	2	7	9	1
Kumar, Deepak	3	6	45	8
Ray, HimanshuPrabha	3	6	147	25
Mazumdar, Ranjani	3	6	164	27
Singha, Radhika	4	5	193	39
Ramaswamy, Vijaya	4	5	165	33
Naithani, Sadhana	4	5	17	3
Malekandathil, Pius	5	4	116	29
Chakravarti, Ranabir	5	4	83	21
Sarkar, Tanika	6	3	59	20
Prasad GJV	6	3	44	15
Pillai, Sharon	6	3	3	1
Paranjape, Makarand	6	3	44	15
Nair, Janaki	6	3	90	30
Jodhka, Surinder S	6	3	3	1
Haider, Najaf	6	3	16	5
Gudavarthy, Ajay	6	3	3	1
Dutt, Bishnupriya	6	3	10	3
D'Souza, Rohan	6	3	3	1
Singh, GaganPreet	7	2	2	1
Sahai, Nandita Prasad	7	2	45	23
Rao, YagatiChinna	7	2	101	51
Parameswaran , Ameet	7	2	23	12
Neog, Bhaskarjit	7	2	2	1
Naha, Souvik	7	2	77	39
Fazili, Gowhar	7	2	2	1
Farooqi, Irfanullah	7	2	2	1
Dzuvichu, Lipokmar	7	2	71	36
Dasgupta, Sangeeta	7	2	101	51
Binny, Malavika	7	2	2	1

Bhattacharya, Sabyasachi	7	2	101	51
Bhattacharya, Neeladri	7	2	83	42
Arunima, G	7	2	23	12
Abbi, Anvita	7	2	120	60

5.10 Other Country contribution

Table 11 presented the outsider authors contribution in DU and JNU's publications. It is found from the study that contribution is very less from other country.

Table 11: Other Country contribution

Country Name	In DU Articles	In JNU Articles	DU %age	JNU %age
England	4	5	2.48	2.56
USA	3	4	1.86	2.05
Brazil	1	-	0.62	-
Canada	-	1	-	0.51
Cyprus	-	1	-	0.51
France	-	1	-	0.51
Germany	-	2	-	1.03
Italy	-	1	-	0.51
Netherlands	2	1	1.24	0.51
North Ireland	1	-	0.62	-
South Korea	-	1	-	0.51

5.11 Highly cited article of DU and JNU

Analysis the highly cited article of DU and JNU, Table 12 and 13 showed the top ten highly cited article of DU and JNU in Arts and Humanities Index. It is noted that University of Delhi highest cited article title is "Mapping a colonial borderland: objectifying the geo-body of India's northeast" which is written by David VumlallianZou and M SatishKumar . It is cited 10 times. From the Table 13, showed that JNU's highly cited article title is "Finding labor from India for the war in Iraq: the jail porter and labor corps, 1916-1920", it is written by RadhikaSingha. This is cited 19 times.

Table 12: Top ten highly cited articles of DU

S.No	Article Title	Author's Name	Cited times
1	Mapping a colonial borderland : objectifying the geo-body of India's Northeast	Zou, David Vumlallian; Kumar, M. Satish	10
2	Eurocentrism, forced labour and global migration: a critical assessment	Mohapatra, Prabhu P.	8
3	Power structure, discipline and labour in assam tea plantations under colonial rule	Behal, Rana P.	7
4	Fugitive Mullahs and outlawed fanatics : Indian muslims in nineteenth century trans - Asiatic imperial rivalries	Alavi, Seema	6
5	Feminine, criminal or manly? Imaging Dalit masculinities in colonial north India	Gupta, Charu	6
6	The wine-cup in Mughal court culture from hedonism to kingship	Khare, M.	6
7	Bhakti and the gendered self : a courtesan and a consort in mid nineteenth century Punjab	Malhotra, Anshu	4
8	God's Body at work : Ramanuja and panentheism	Barua, Ankur	4
9	How modern Planning came to Calcutta	Datta, Partho	4
10	Reading strategies of billingual normally progressing and dyslenic readers in Hindi and English	Gupta, Ashum; Jamal, Gulgoona	4

Table 13: Top ten highly cited articles of JNU

S.No.	Article Title	Author's Name	Cited times
1	Finding labor from India for the war in Iraq: the jail porter and labor corps, 1916-1920	Singha, Radhika	19
2	Teaching history in schools: the politics of textbooks in India	Bhattacharya, Neeladri	7
3	2005 Paul hanlyfurfey lecture -citizens versus people: the politics of majoritorianism and marginalization in democratic India	Gupta, Dipankar	6
4	Aviation, tourism and dreaming in 1960s bombay cinema	Mazumdar, Ranjani	5

5	Is geatandamanese genealogically and typologically distinct from Onge and Jarawa	Abbi, Anvita	5
6	The history debate and school textbooks in India: a personal memoir	Thapar, Romila	4
7	The limit of representative democracy	Jayal, NirajaGopal	4
8	Well-ordered science and Indian epistemic cultures toward a poly centered history of science	Ganeri, Jonardon	4
9	Archaeology and empire: Buddhist monuments in monsoon Asia	Himanshu, Prabha	3
10	Beyond the subaltern syndrome: AmitavGhosh and the crisis of the bhadrasamaj	Pananjape, Makarand R.	3

6. Major Findings

1. A total number of 161 articles of University of Delhi and 195 articles of JNU were published in Arts and Humanities Index from 2004 to 2016. It is noticed that JNU was giving more research productivity as compare to DU. There were continuous increase the research output after the year of 2012 in JNU.

2. It is found that majority of references were between 0-5 range in DU and JNU with 76 (47.20%) and 105 (53.85%) articles respectively.

3. Most of the papers were under the length of 0-5 pages of DU and JNU with 78 (48.45%) and 94 (48.21%) articles respectively.

4. Maximum number of papers i.e., 82 (50.93%) of DU and 96 (49.23%) of JNU were published under the document types of "Articles".

5. It is revealed that mostly papers were written by single authors in DU i.e., 150 articles (93.17%) and JNU i.e., 184 articles (94.85%)

6. Majority of papers were related the subject of "History" with 74 articles in DU and JNU.

7. It is found that 161 articles of DU were published in total 59 source titles and "Indian Historical Review" was counted highest ranked source title with 35 articles. In other side 195 articles of JNU were published under the 94 source titles and "Indian Economic and Social History Review" was counted highly used source title of JNU with 25 articles.

8. BinduPuri and Charu Gupta were high prolific author of DU with 5 articles and RomilaThapar was highly prolific author of JNU with 8 articles.

7. Conclusion

The result of this study that JNU provided the more research productivity with 195 papers as compare to DU 161 papers between the year of 2004 to 2016 in Arts and Humanities Citation Index. Co-cooperation was very less between the authors of arts and humanities subjects. Mostly were interested to write papers individually and their range to write paper was also no so long. Majority of papers were published in the range of 0-5 pages in both universities. It was also noticed from the study that authors were not interested to use the more references in the papers, so mostly they were using 0-5 references in the papers, and found that 76 (47.20%) papers of DU and 105 (53.85%) papers of JNU were using references between 0-5 in the papers. In the arts and humanities, History was highly worked research area with 74 articles in DU and JNU. And if, say about the outsider contribution in these publications, it was found very less. And in this study, out of 132 source titles, only 21 source titles were commonly used in both universities such as bioscope-south Asian Screen Studies, Indian Historical Review, Indian Economic and Social History Review, International Review of Social Asian Studies, Medieval History Journal, Modern Asian Studies etc. BinduPuri and Charu Gupta of DU and RomilaThapar of JNU were high ranked prolific authors in arts and humanities citation index of web of science.

It may be concluded that research productivity of arts and humanities subject fields is very low of DU and JNU in arts and humanities citation index, it is important to develop the constricted mind of authors those are interested to work individually, because cooperate mind can give the best output as compare to constricted mind. And it is necessity for using more references in papers and starts work on many other subject areas of arts and humanities.

REFERENCES

[1]. Anil Kumar Siwach and Satish Kumar, "Bibliometic analysis of research publications of MaharshiDayanand University (Rohtak) during 2000-2013," DESIDOC Journal of Library and Information Technology, vol. 35(1), pp. 17-24, 2015.

[2]. B.M Gupta and Har Kaur, "World glaucoma research: a quantitative analysis of research output during 2002-11," Annals of Library and Information Studies, vol. 60(2), pp. 98-106, 2013.

[3]. C. Kao and H. I. Pao, "An evaluation of research performance in management of 168 Taiwan universities," Scientometrics, vol. 78(2), pp. 261-277, 2009.

[4]. H. Anil Kumar and Mallikarjun Dora, "Research productivity in a management institute: an analysis of research performance of Indian Institute of Management Ahmedabad during 1999-2010," DESIDOC Journal of Library and Information Technology, vol. 32(4), pp. 365-372, 2012.

[5]. K. Savanur and P. V. Konnur, "Growth and impact of research output of Bangalore University, 1971-2010: a scientometric study," International Journal of Library and Information Science, vol. 3(5), pp. 71-80, 2012.

[6]. Mallinath Kumbar, B. M. Gupta and S. M. Dhawan, "Growth and impact of research output of University of Mysore, 1996-2006: a case study," Annals of Library and Information Studies, vol. 55(3), pp. 185-195, 2008.

[7]. Meera and Surendra Kumar Sahu, "Research output of University College of Medical Science, University of Delhi: a bibliometricstudy," *Collnet Journal of Scientrometrics and Information Management*, vol. 8(2), pp. 401-418, 2014.

[8]. Miriam Palacios-Callender, Stephen Andrew Roberts and Thomas Roth-Berghofer, "Evaluating patterns of national and international collaboration in Cuban science using bibliometric tools," *Journal of Documentation*, vol. 72(2), pp. 362-390, 2016.

[9]. Sangam and Meera "Research collaboration pattern in Indian contribution to Chemical sciences" *Collnet Journal of Scientometrics and Information Management*, vol. 3(1), pp. 39-45, 2009.

[10]. Sharunizam Shari, Gaby Haddow and Paul Genoni "Bibliometric and webometric methods for assessing research collaboration" *Library Review*, vol. 61(8/9), pp. 592-607, 2012.

[11]. U. Selong Edem, "Quantitative measurement of publication output among librarians in Nigeian universities," Annals of Library and Information Studies, vol. 41(2), pp. 55-62, 1994.

[12]. Vinod Kumar Gautam and Rajrani Mishra, "Scholarly research trends of Banaras Hindu University during 2004-2013: a scientometic study based on Indian Citation Index," DESIDOC Journal of Library and Information Technology, vol. 35(2), pp.75-81, 2015.

[13]. Williams Nwagwu and Osakioduwa Egbon, "Bibliometric analysis of Nigeria's social science and arts and humanities publications in Thomson Scientific database," The Electronic Library, vol. 29(4), pp. 438-45, 2011.